



Pushing Performance



People | Power | Partnership

## **HARTING** Customised Solutions

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Applications and solutions

Growing and complex markets demand more specific components. With HARTING Customised Solutions we respond to this growing demand with individualised solutions that bring you forward. Based on this collected expertise we realise individual solutions, that also convince economically. Whether cable assembly or complex integrated systems: for each project we have one target - to offer a solution with real value.

Working together with you, we analyse your problem and develop the best possible solution. We identify and document the necessary project steps based on your requirements. Working together with you and our production specialists we plan the actual implementation. Based on decades of manufacturing expertise, we are able to implement solutions complying with the highest quality standards.





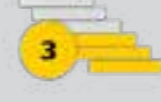

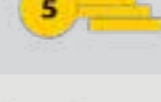

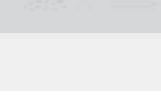
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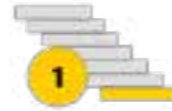
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## HCS complexity levels

	Set Packaging	Custom kitting service for multiple parts, including assembly instructions
	Modified Solution	Modification of standard HARTING components
	Cable Assembly	Wide range of standardised and customised cable assemblies
	Cable Harness	Design and manufacture sets of cable assemblies for OEM applications
	Designed Solution	Design, development and production of tailor-made component solutions
	Total Solution	Development and manufacturing of sub-systems and box builds
	Integrated Project	Design, production, installation and management of complex projects, based on HARTING technologies

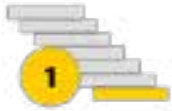
## Set packaging



- Set based on customer combinations
- Including non-standard components
- One part number to handle, also customer specific part number
- Specific mounting instructions



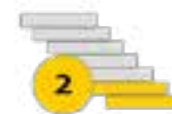
## Set packaging





# Potting

- Solid solution for wire fixation
- Available for electric and electronic connectors
- Possible for small quantities



# Modified connectors

- Extensions on cable entries
- Large cable diameters possible
- Han-Quintax® and Han-Modular®





## Modified hoods and housings

- Standard components, modified to customised solutions
- Additional holes for multiple cable entries
- Printed information
- Special colours
- Customised brackets for shielding and grounding



## Modified hoods and housings



# Fibre optic assemblies

- Fibre glass and POF handling
- Polishing multiple fibres simultaneously
- Integrated part of hybrid cables
- Various applications

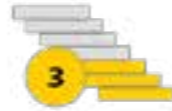


# Fibre optic assemblies

- Expanded beam cable assemblies
- PushPull xs SFP cable assemblies
- PushPull cable assemblies
- Fibre optic and copper hybrid cable assemblies
- Fibre optic cable assemblies



# Overmoulding



- Solid solution for Han® cable assemblies
- Compact solution for double cable entry assemblies
- Fixed wire guidance
- Possible for small quantities



# Overmoulding







# Data cables

- Overmoulded cable assemblies for data applications
- M12 and RJ45 connectors
- PushPull cables
- Modified cable entries



# Data cables





## Sensor actuator boxes

- M8 and M12 connections
- 4, 8, 10 ports
- Cable connections and M23/M16/M12 connectors
- Special versions on demand



## M23 servo motor and feedback cables

- Different power inserts: 6, 8 or 9 poles hybrid, 30 A, 690 V AC
- Different data inserts: 12, 17 or 19 poles
- Different encoder connections: D-Sub, RJ45, M12 or M8





## Jumper cables

- Cable sets based on customer requirements
- Complying with railway specifications
- Endurance testing possible
- Mechanical constructions and modified connectors
- Customised box for transportation



## Jumper cables



## Fibre optic accessories



- Function boxes based on customer request
- Customised protective solutions
- Customised distribution solutions



## Potting in developed box



- Customised box with integrated connector housings
- Fixed wires and connections
- Seals connectors internally
- Flexible for small series
- IP rated, based on requirements



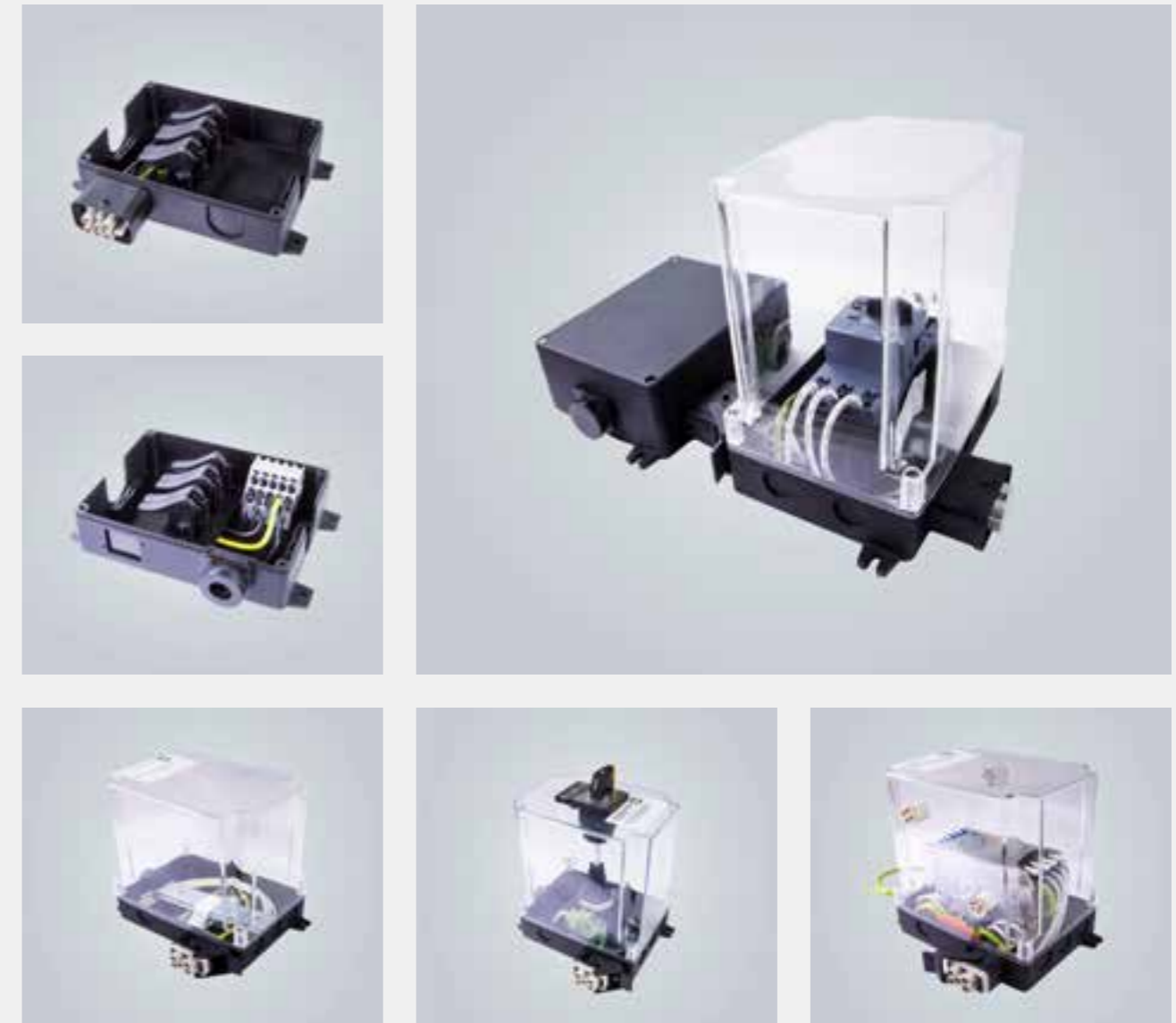
# Injection moulding



- Based on customer requirements
- Injection moulding MOQ starting at 1.000 pcs., depending on the complexity
- Choice of technology depending on requested quantities
- Prototyping possible



# Injection moulding



# Die-casting



- Based on customer requirements
- Die-casting parts MOQ 200 pcs
- Choice of technology depending on requested quantities
- Prototyping possible



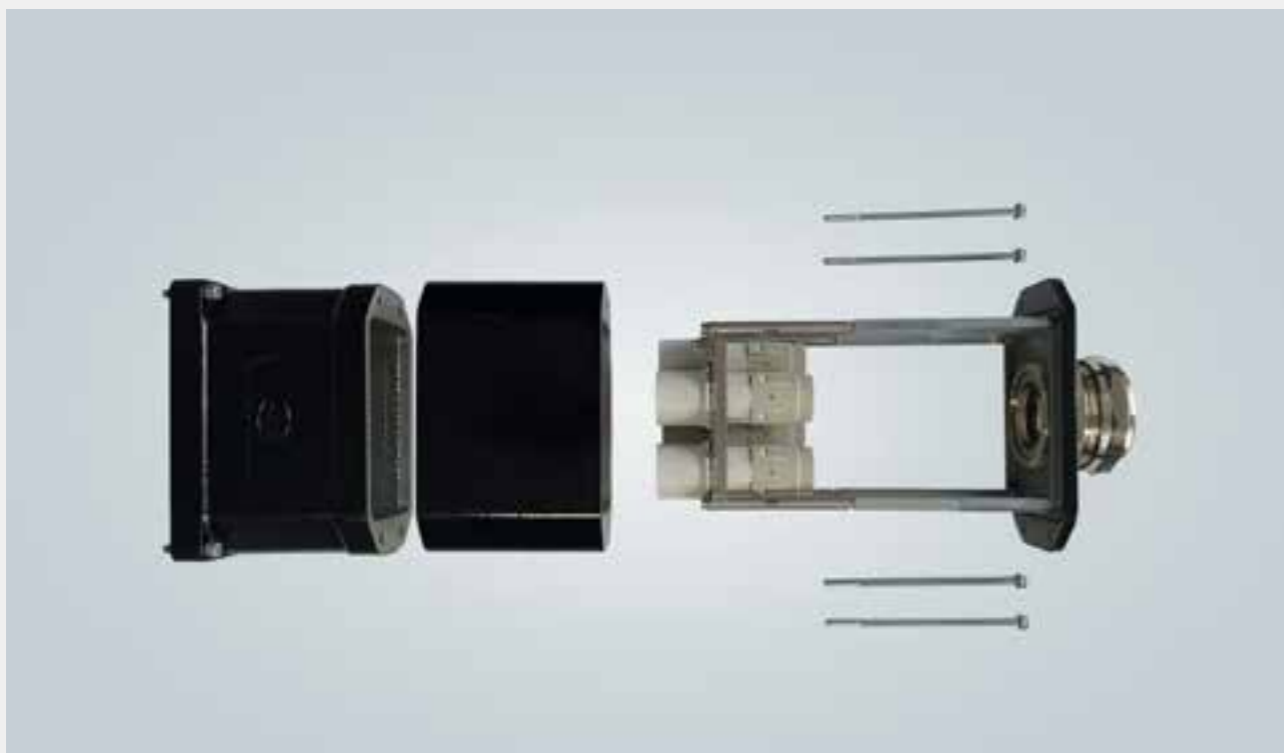
# Die-casting





## Power connection

- Enlargement for standard hood
- Entry for power cable
- Offers space inside connector hood for connection of single wires



## Screw adaptor

- Han-Compact® screw-in adapter M25
- Assembly of Han-Compact® in M25 cable gland
- Suitable for Han® Q 4/2, Han® Q 8/0 and Han® Q 17 inserts





# Slipring coupling

- For wind turbine application
- Integration of 2 modular connectors
- Customer specific hood and housing



# SIEMENS solution partner

- Power cables
- Power distribution boxes
- Range of daisy chaining boxes
- Shielded motor cables 7/8" cables for 24 volt M12 cables







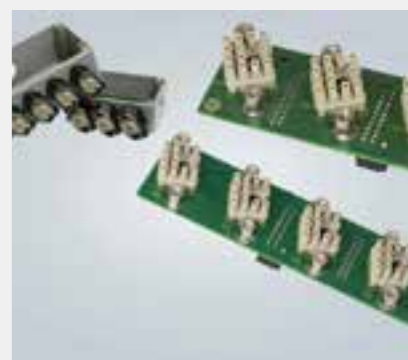
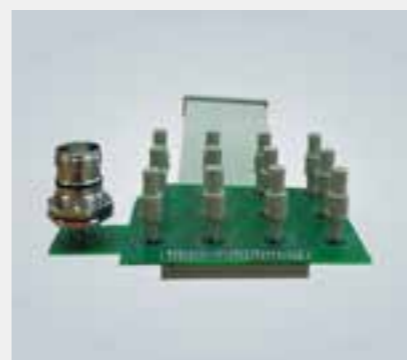
# Multiphase test connector

- For 10 B motor connector
- Star or delta connection
- Phase connection
- Rotating fields



# PCB connectivity

- Power and signal on PCB
- Boxes with integrated PCB's





# Security

- Interconnection box for surveillance cameras
- Connections for power and network
- Mountable in various ways
- Fast connections based on PushPull connectivity



# Machine manufacturing

- Development and manufacture of sub-systems
- Fully functional and tested application boxes
- Junction boxes



# LED lights for railway



- Application for harsh environments
- Compact and robust LED lights
- Complete system including cables, distribution box and switch
- Suitable for rolling stocks



# LED lights for railway

## Fibre optic networking solutions



- Optical connection into a rotating propellor
- Bi-directional communication over single fibre



## Wiring of hybrid busses



- Power cable assemblies
- Box building and testing
- Integration of components of various suppliers
- Installation on the busses





**Pushing Performance**

## **HARTING.com - the gateway to your local website**

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